

The diagram illustrates an internal combustion engine system (10) and its associated components. The central component is the INTERNAL COMBUSTION ENGINE (115). The intake system (11) includes an intake manifold (111) with intake valves (112) and a throttle valve (110) controlled by a throttle actuator (1110). The exhaust system (12) includes an exhaust manifold (122) with exhaust valves (123) and a catalytic converter (121). The engine is connected to a crankshaft (13) and a camshaft (14). The camshaft is driven by a timing belt (142) and a timing pulley (141). The engine is also connected to a water pump (134) and a radiator (133). The engine is controlled by an ECU (15) which receives input from various sensors (131, 132, 133, 135, 136, 137, 143, 144, 145, 146) and outputs control signals to various actuators (1110, 112, 123, 131, 132, 133, 135, 136, 137, 143, 144, 145, 146). The ECU (15) is also connected to a battery (1112) and a ground (1111).

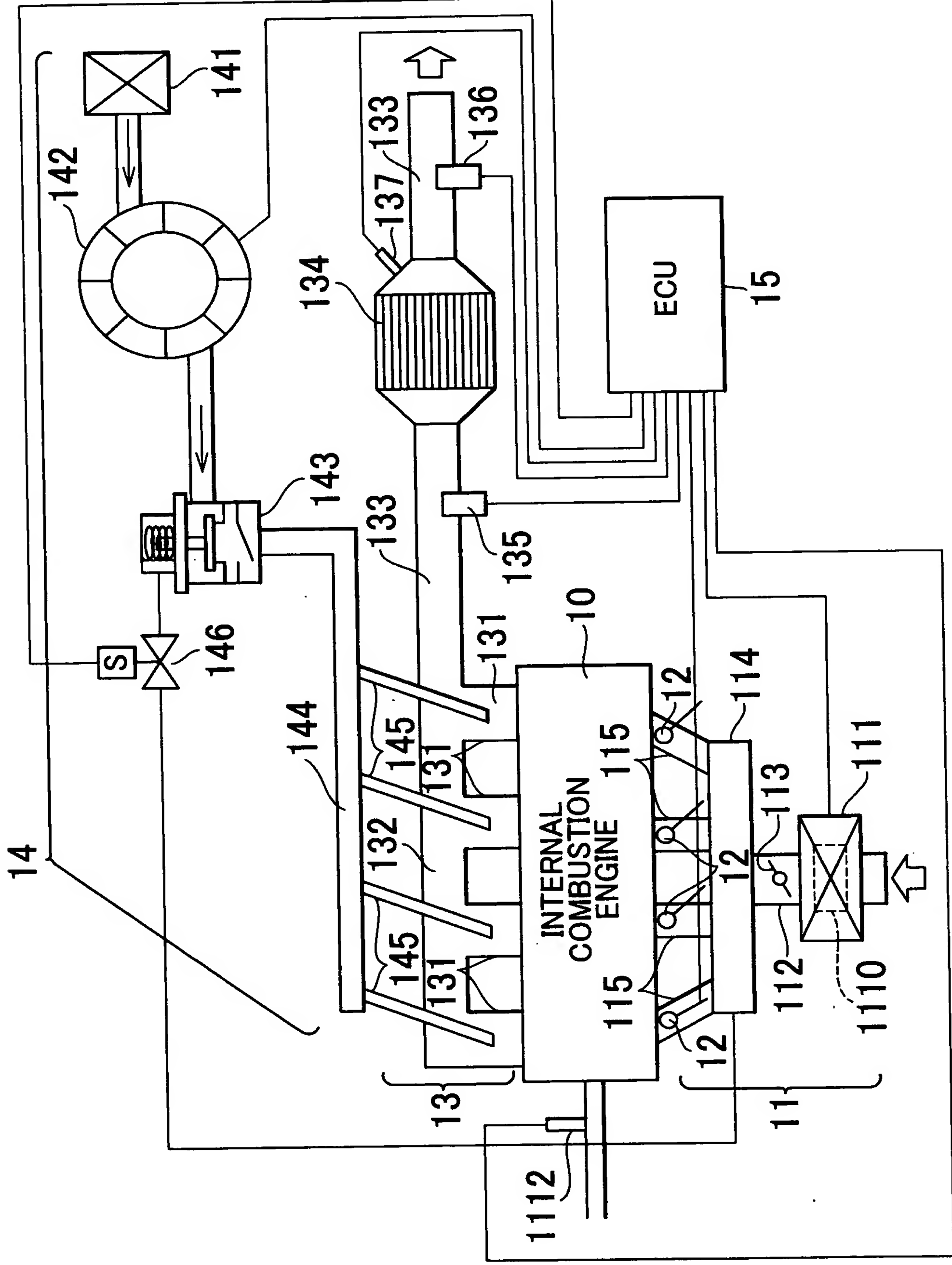


FIG. 2

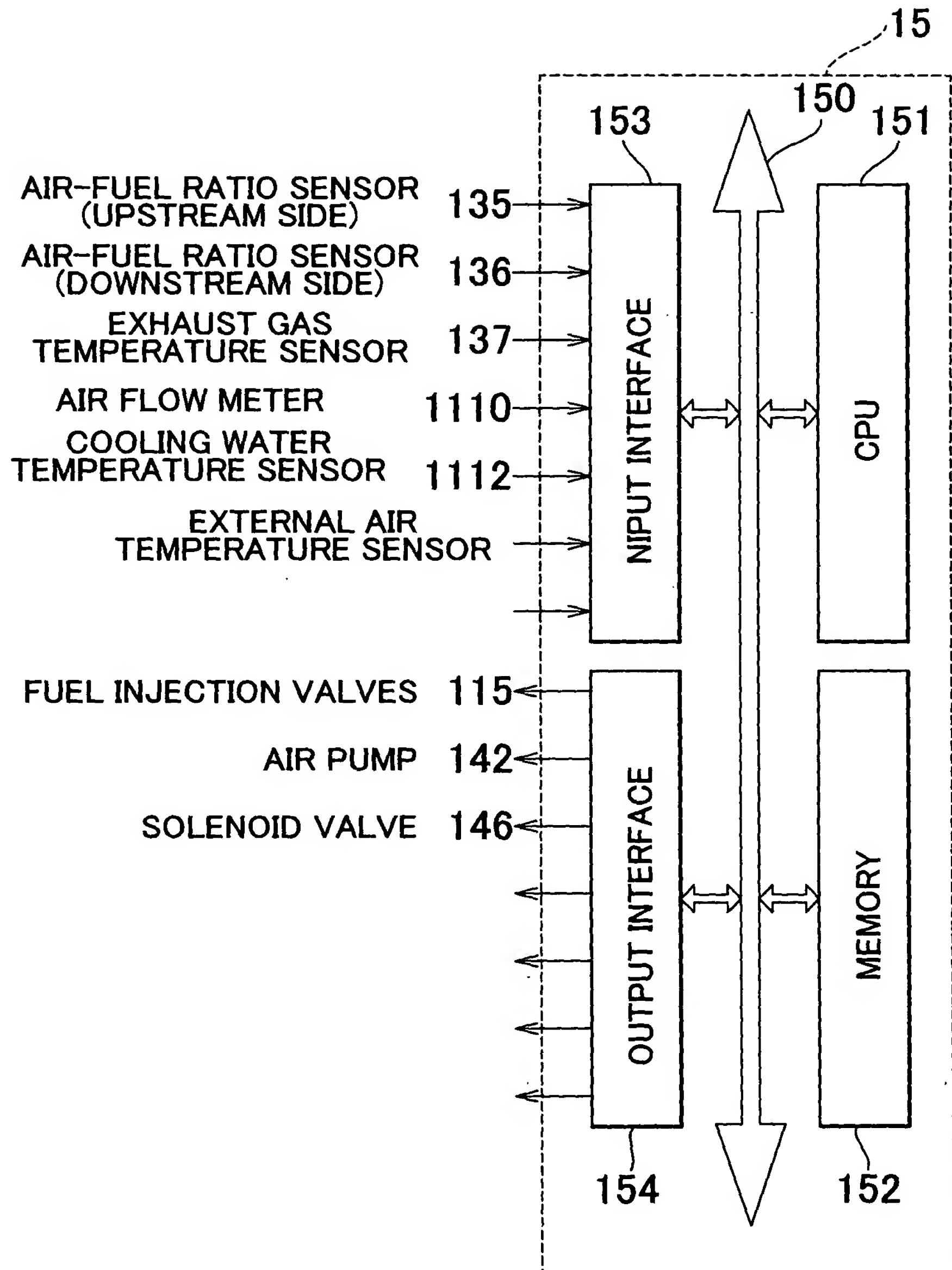


FIG. 3

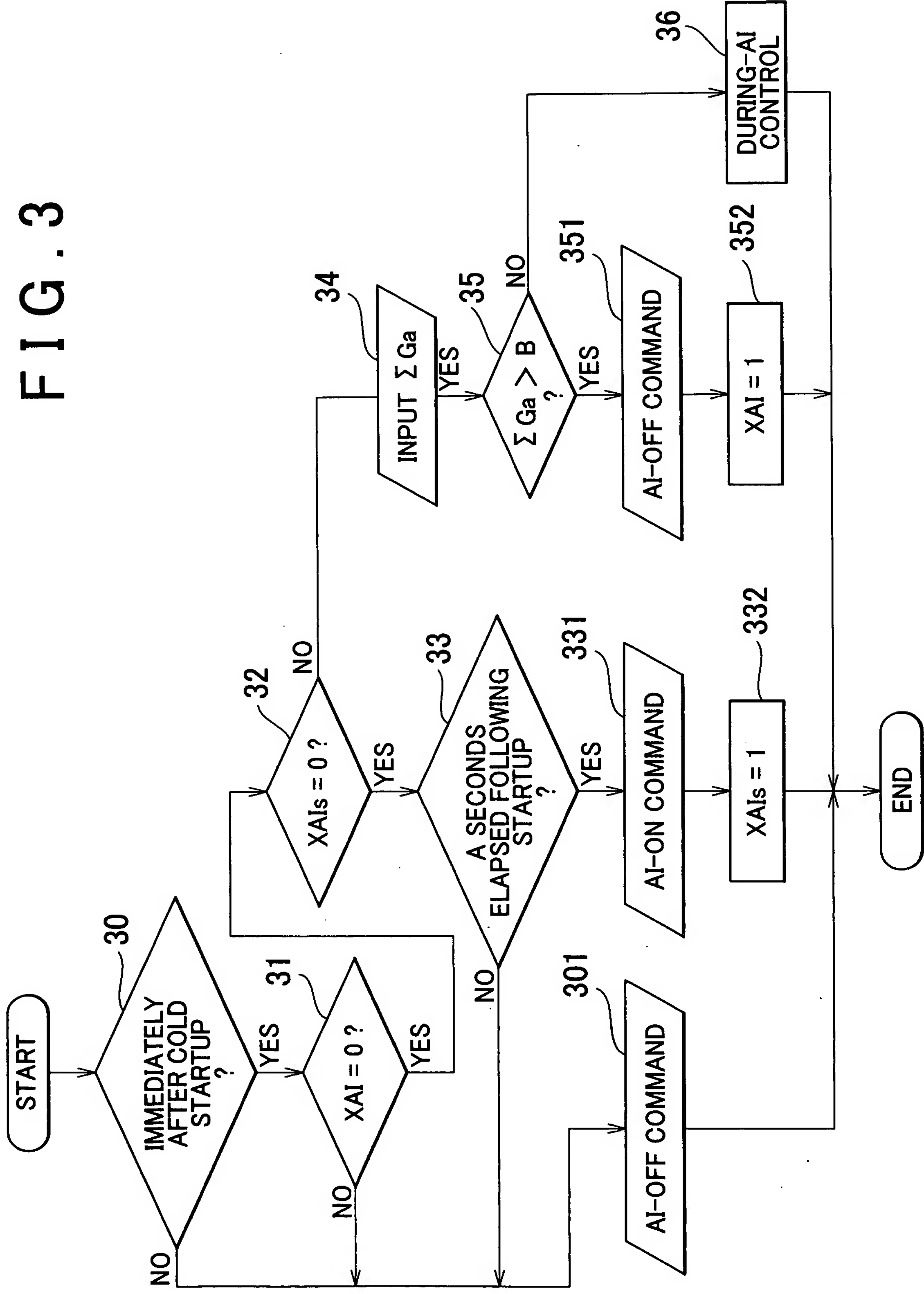


FIG. 4

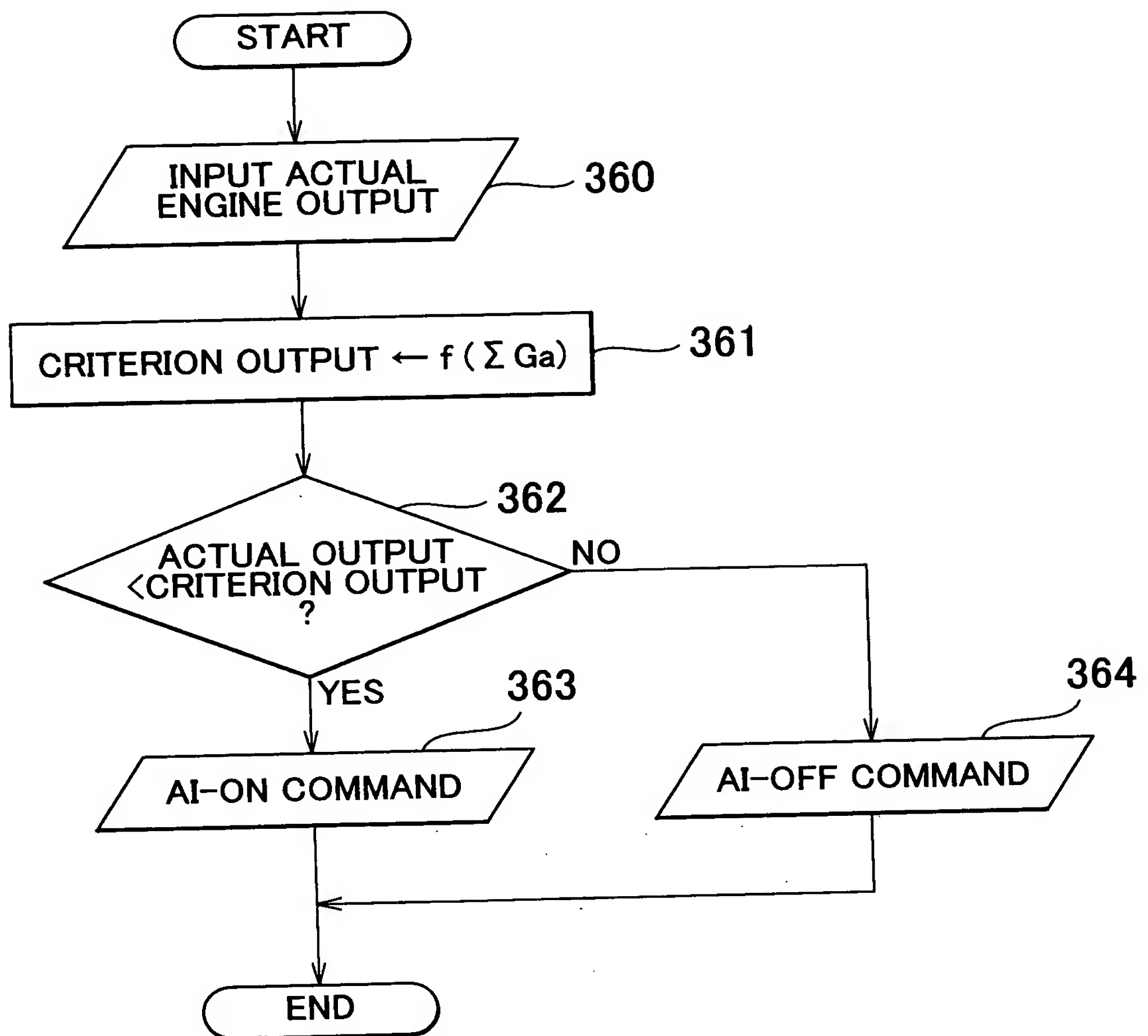


FIG. 5

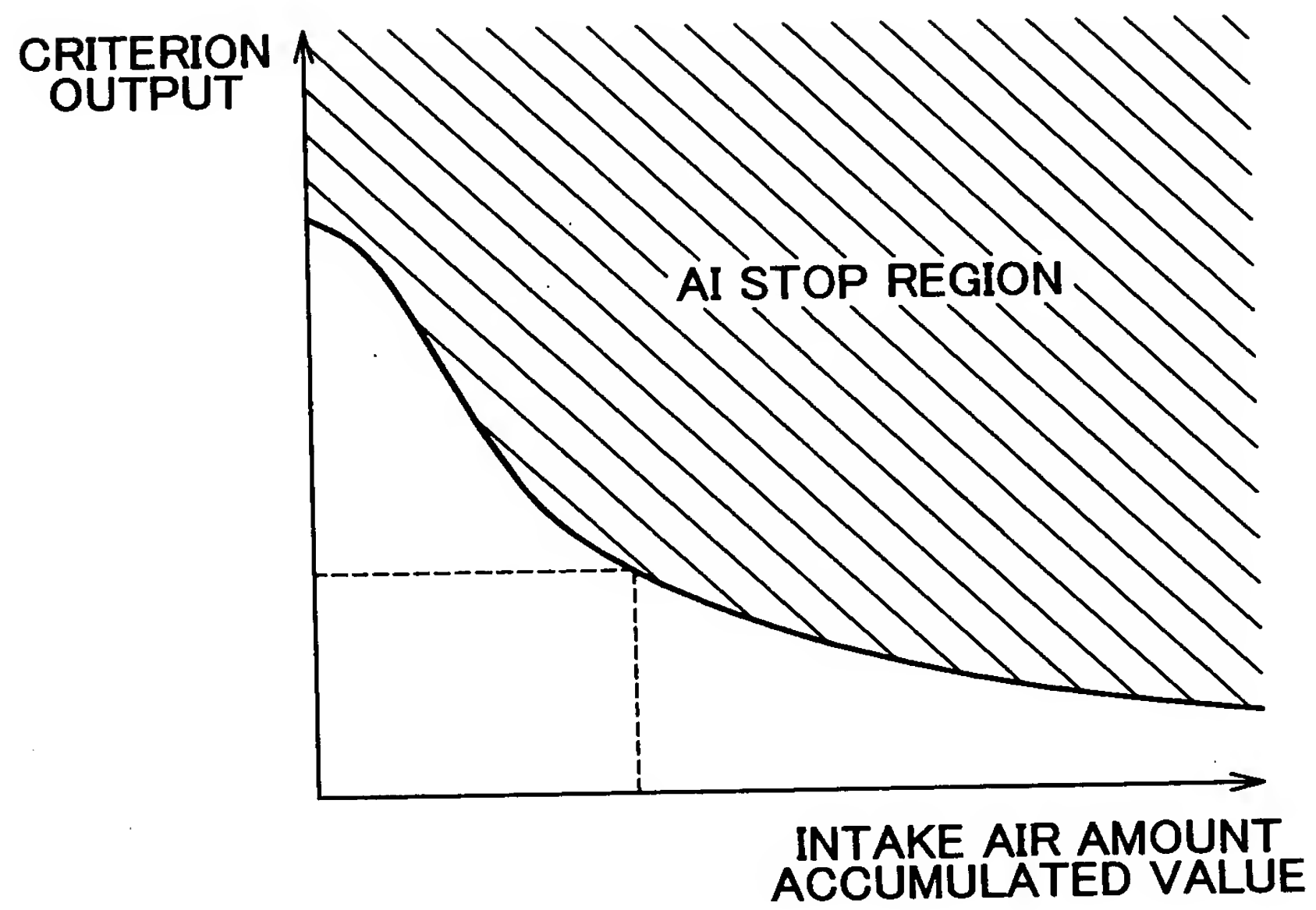


FIG. 6

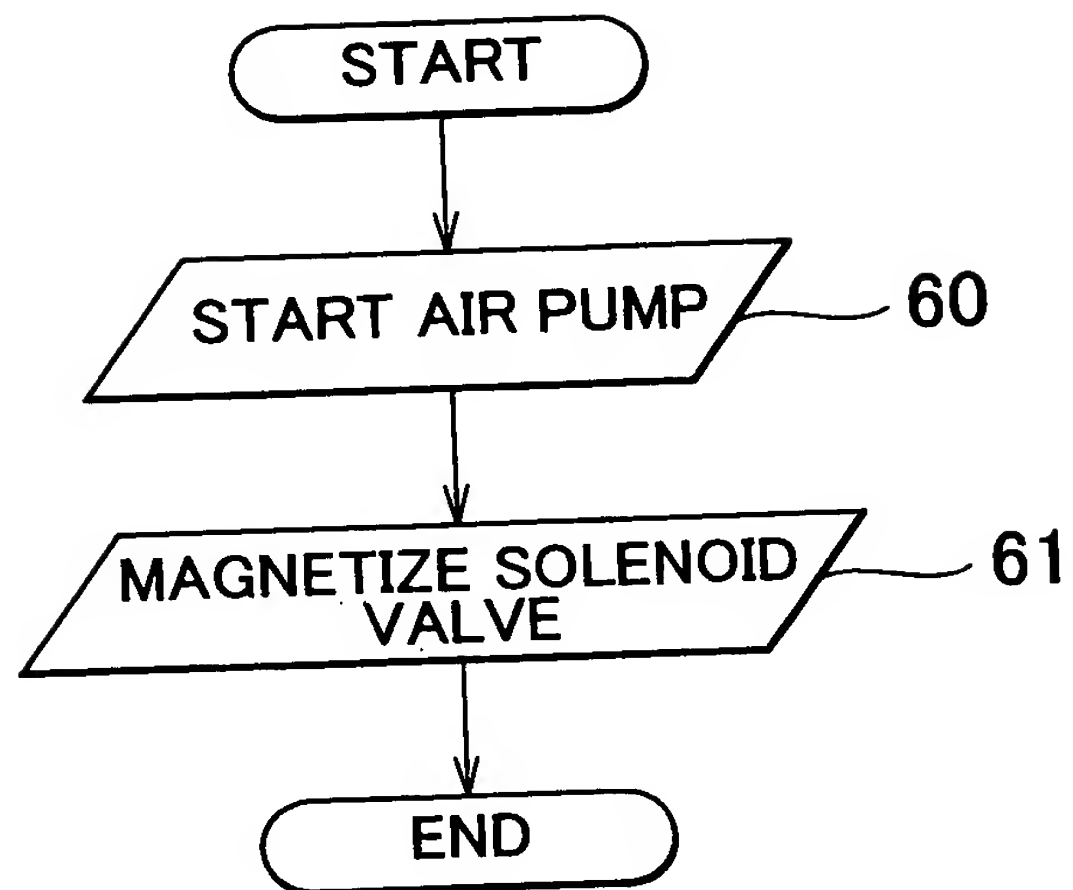


FIG. 7

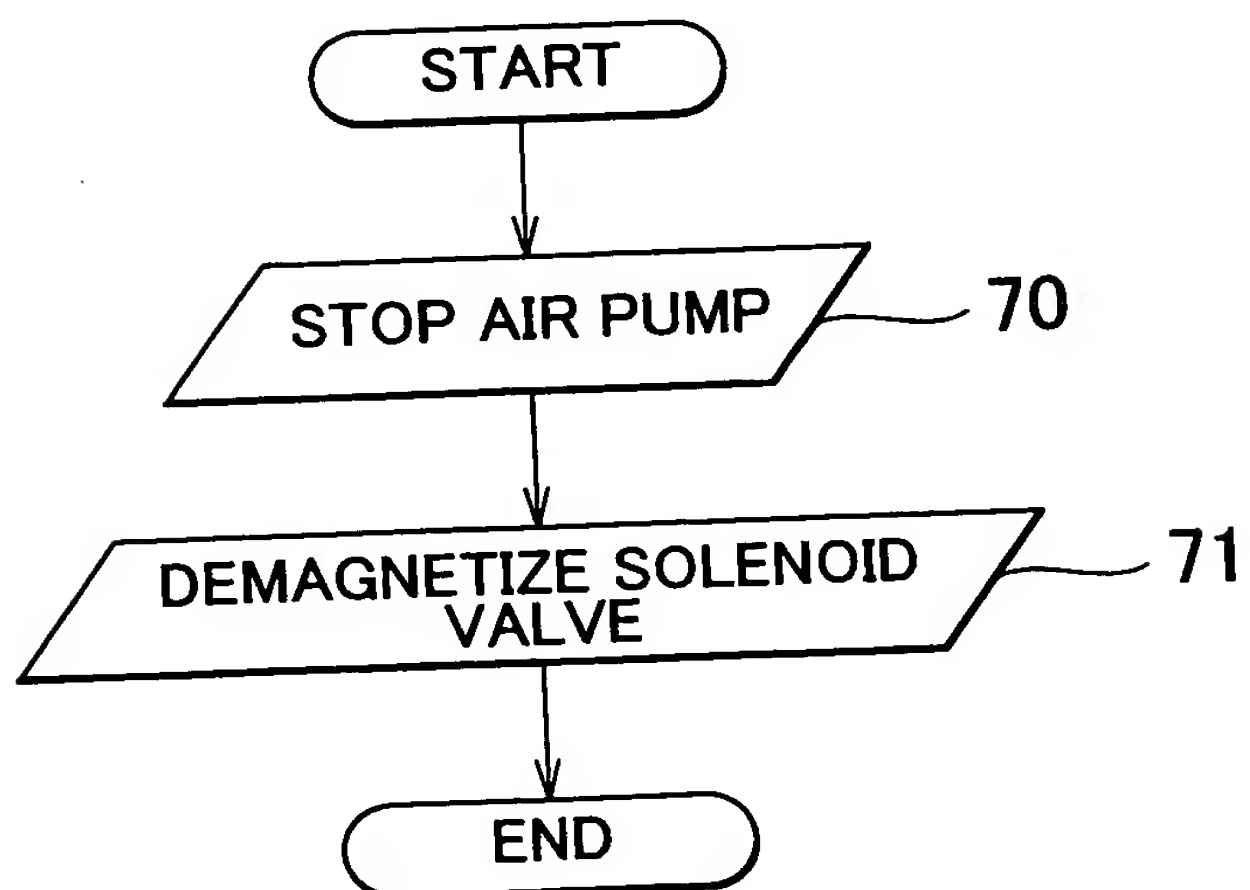


FIG. 8

